

APPENDIX A SECRETARY'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS



Our ref: SSD 8183

Mr Tom Best
First Solar (Australia) Pty Ltd
Level 3, 16 Spring Street
SYDNEY NSW 2000

Dear Mr Best

**Beryl Solar (SSD 8183)
Environmental Assessment Requirements**

I have attached the Environmental Assessment Requirements for the preparation of an Environmental Impact Statement (EIS) for the Beryl Solar Farm.

The requirements are based on the information you have provided to date, and have been prepared in consultation with the relevant government agencies. The agencies comments are attached for your information (see Attachment 2).

Please note that the Department may alter these requirements at any time, and that you must consult further with the Department if you do not lodge a development application and EIS for the project within the next two years.

If your proposal contains any actions that could have a significant impact on matters of National Environmental Significance, then it will also require approval under the Commonwealth's *Environment Protection Biodiversity Conservation Act 1999* (EPBC Act).

This approval is in addition to any approvals required under NSW legislation. If you have any questions about the application of the EPBC Act to your proposal, you should contact the Department of the Environment and Energy in Canberra (02 6274 1111 or www.environment.gov.au).

Please contact the Department at least two weeks before you plan to submit the development application and EIS for the project. This will enable the Department to:

- confirm the applicable fee (see Division 1AA, Part 15 of the *Environmental Planning and Assessment Regulation 2000*); and
- determine the required number of copies of the EIS.

It is important for you to recognise that the Department will review the EIS for the project before putting it on public exhibition. If it fails to adequately address these requirements, you will be required to submit an amended EIS.

Yours sincerely

25/1/17

Clay Preshaw
A/Director
Resource Assessments
(as nominee of the Secretary)

Environmental Assessment Requirements

State Significant Development

Section 78A(8A) of the *Environmental Planning and Assessment Act 1979*

Application Number	SSD 8183
Proposal	Beryl Solar which includes: <ul style="list-style-type: none">the construction and operation of a solar photovoltaic (PV) generation facility with an estimated capacity of 95 MW; andassociated infrastructure, including a grid connection.
Location	Beryl Road, Beryl (Mid-Western Regional Council)
Applicant	First Solar (Australia) Pty Ltd
Date of Issue	25 January 2017
General Requirements	<p>The Environmental Impact Statement (EIS) for the development must comply with the requirements in Schedule 2 of the <i>Environmental Planning and Assessment Regulation 2000</i>.</p> <p>In particular, the EIS must include:</p> <ul style="list-style-type: none">a full description of the development, including:<ul style="list-style-type: none">details of construction, operation and decommissioning;a site plan showing all infrastructure and facilities (including any infrastructure that would be required for the development, but the subject of a separate approvals process);a detailed constraints map identifying the key environmental and other land use constraints that have informed the final design of the development;a strategic justification of the development focusing on site selection and the suitability of the proposed site;an assessment of the likely impacts of the development on the environment, focusing on the specific issues identified below, including:<ul style="list-style-type: none">a description of the existing environment likely to be affected by the development;an assessment of the likely impacts of all stages of the development (which is commensurate with the level of impact), taking into consideration any relevant legislation, environmental planning instruments, guidelines, policies, plans and industry codes of practice;a description of the measures that would be implemented to avoid, mitigate and/or offset the impacts of the development (including draft management plans for specific issues as identified below); anda description of the measures that would be implemented to monitor and report on the environmental performance of the development;a consolidated summary of all the proposed environmental management and monitoring measures, identifying all the commitments in the EIS; andthe reasons why the development should be approved having regard to the biophysical, economic and social costs and benefits of the development. <p>While not exhaustive, Attachment 1 contains a list of some of the environmental planning instruments, guidelines, policies, and plans that may be relevant to the environmental assessment of this development.</p> <p>In addition to the matters set out in Schedule 1 of the <i>Environmental Planning and Assessment Regulation 2000</i>, the development application must be accompanied by:</p> <ul style="list-style-type: none">a signed report from a suitably qualified person that includes an accurate estimate of the capital investment value of the development (as defined in Clause 3 of the <i>Environmental Planning and Assessment Regulation 2000</i>); and

	<ul style="list-style-type: none"> the consent in writing of the owner of the land (as required in clause 49(1)(b) of the <i>Environmental Planning and Assessment Regulation 2000</i>).
Specific Issues	<p>The EIS must address the following specific issues:</p> <ul style="list-style-type: none"> Biodiversity – including an assessment of the likely biodiversity impacts of the development, (including but not limited to the impacts on Box Gum Woodland endangered ecological community, <i>Euphrasia arguta</i>, <i>Prasophyllum</i> sp. <i>Wybong</i>, Bluegrass (<i>Dichanthium setosum</i>), Pink Donkey Orchid (<i>Diuris tricolor</i>), Regent Honeyeater (<i>Anthochaera phrygia</i>), Swift Parrot (<i>Lathamus discolor</i>), and Silky Swainson-pea (<i>Swainsona sericea</i>)), having regard to the <i>NSW Biodiversity Offsets Policy for Major Projects</i>, and in accordance with the <i>Framework for Biodiversity Assessment</i>, unless otherwise agreed by the Department; Heritage – including an assessment of the likely Aboriginal and historic heritage (cultural and archaeological) impacts of the development, including adequate consultation with the local Aboriginal community; Land – including an assessment of the impact of the development on agricultural land and flood prone land, a soil survey to consider the potential for erosion to occur, and paying particular attention to the compatibility of the development with the existing land uses on the site and adjacent land (e.g. operating mines, extractive industries, mineral or petroleum resources, exploration activities, aerial spraying, dust generation, and risk of weed and pest infestation) during operation and after decommissioning, with reference to the zoning provisions applying to the land; Visual – including an assessment of the likely visual impacts of the development (including any glare, reflectivity and night lighting) on surrounding residences, scenic or significant vistas, air traffic and road corridors in the public domain, including a draft landscaping plan for on-site perimeter planting, with evidence it has been developed in consultation with affected landowners; Noise – including an assessment of the construction noise impacts of the development in accordance with the <i>Interim Construction Noise Guideline</i> (ICNG) and operational noise impacts in accordance with the <i>NSW Industrial Noise Policy</i> (INP), and a draft noise management plan if the assessment shows construction noise is likely to exceed applicable criteria; Transport – including an assessment of the site access route (including Castlereagh Highway and Beryl Road), site access point, rail safety issues and likely transport impacts of the development on the capacity and condition of roads (including on any Crown land), a description of the measures that would be implemented to mitigate any impacts during construction, and a description of any proposed road upgrades developed in consultation with the relevant road and rail authorities (if required); Water – including: <ul style="list-style-type: none"> an assessment of the likely impacts of the development (including flooding) on surface water and groundwater resources (including watercourses (including the Cudgegong River and Wialdra Creek), wetlands, riparian land, groundwater dependent ecosystems and acid sulfate soils), related infrastructure, adjacent licensed water users and basic landholder rights, and measures proposed to monitor, reduce and mitigate these impacts; details of water supply arrangements; and a description of the erosion and sediment control measures that would be implemented to mitigate any impacts in accordance with <i>Managing Urban Stormwater: Soils & Construction</i> (Landcom 2004); Hazards and Electromagnetic Interference – an assessment of potential hazards and risks associated with bushfires and the proposed transmission line and substation against the International Commission on Non-Ionizing Radiation Protection (ICNIRP) <i>Guidelines for limiting exposure to Time-varying Electric, Magnetic and Electromagnetic Fields</i>. Socio-Economic – including an assessment of the likely impacts on the local community and a consideration of the construction workforce accommodation.

Consultation	<p>In preparing the EIS for the development, you should consult with relevant local, State or Commonwealth Government authorities, infrastructure and service providers, community groups, affected landowners, exploration licence holders, quarry operators and mineral title holders.</p> <p>In particular, you must undertake detailed consultation with affected landowners surrounding the development and Mid-Western Regional Council.</p> <p>The EIS must describe the consultation that was carried out, identify the issues raised during this consultation, and explain how these issues have been addressed in the EIS.</p>
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Environmental Planning Instruments, Policies, Guidelines & Plans

Biodiversity

[Framework for Biodiversity Assessment \(OEH\)](#)
[NSW Biodiversity Offsets Policy for Major Projects \(OEH\)](#)
[Threatened Species Assessment Guidelines - Assessment of Significance \(OEH\)](#)
[Biosecurity Act 2015](#)
[Why Do Fish Need to Cross the Road? Fish Passage Requirements for Waterway Crossings \(DPI\)](#)
[Policy and Guidelines for Fish Habitat Conservation and Management \(DPI\)](#)

Heritage

[Aboriginal Cultural Heritage Consultation Requirements for Proponents \(OEH\)](#)
[Code of Practice for Archaeological Investigations of Objects in NSW \(OEH\)](#)
[Guide to investigating, assessing and reporting on aboriginal cultural heritage in NSW \(OEH\).](#)
[NSW Heritage Manual \(OEH\)](#)

Land

[Primefact 1063: Infrastructure proposals on rural land \(DPI\)](#)
[Establishing the social licence to operate large scale solar facilities in Australia: insights from social research for industry \(ARENA\)](#)
[Local Land Services Act 2013](#)
[Australian Soil and Land Survey Handbook \(CSIRO\)](#)
[Guidelines for Surveying Soil and Land Resources \(CSIRO\)](#)
[The land and soil capability assessment scheme: second approximation \(OEH\)](#)

Noise

[NSW Industrial Noise Policy \(EPA\)](#)
[Interim Construction Noise Guideline \(EPA\)](#)
[NSW Road Noise Policy \(EPA\)](#)

Transport

[Guide to Traffic Generating Developments \(RTA\)](#)
[Road Design Guide \(RMS\) & relevant Austroads Standards](#)
[Austroads Guide to Traffic Management Part 12: Traffic Impacts of Development](#)

Water

[Managing Urban Stormwater: Soils & Construction \(Landcom\)](#)
[Floodplain Development Manual \(OEH\)](#)
[Guidelines for Controlled Activities on Waterfront Land \(DPI Water\)](#)
[Water Sharing Plans \(DPI Water\)](#)
[Floodplain Management Plan \(DPI Water\)](#)
[Guidelines for Watercourse Crossings on Waterfront Land \(DPI Water\)](#)

Waste

[Waste Classification Guidelines \(EPA\)](#)

Electromagnetic Interference

[ICNIRP Guidelines for limiting exposure to Time-varying Electric, Magnetic and Electromagnetic Fields](#)

Environmental Planning Instruments

[State Environmental Planning Policy \(State and Regional Development\) 2011](#)
[State Environmental Planning Policy \(Infrastructure\) 2007](#)
[State Environmental Planning Policy \(Rural Lands\) 2008](#)
[State Environmental Planning Policy No. 44 – Koala Habitat Protection](#)
[State Environmental Planning Policy No. 55 – Remediation of Land](#)
[Mid-Western Regional Local Environmental Plan 2012](#)



Department of Primary Industries

OUT17/3110

Ms Diana Charteris
Resource Assessments
NSW Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

Diana.charteris@planning.nsw.gov.au

Dear Ms Charteris

Beryl Solar Farm (SSD 8183)
Request for Secretary's Environmental Assessment Requirements (SEARs)

I refer to your email of 24 January 2017 to the Department of Primary Industries (DPI) in respect to the above matter. Comment has been sought from relevant divisions of DPI. Views were also sought from NSW Department of Industry - Lands that are now a division of the broader Department and no longer within NSW DPI. Any further referrals to DPI can be sent by email to landuse.enquiries@dpi.nsw.gov.au.

DPI has reviewed the Preliminary Environmental Assessment and accompanying draft SEARs and provides the following recommendations:

- Specific Issues – Land should include a requirement for the proponent to develop Rehabilitation and Decommissioning/Closure Plans that outline rehabilitation objectives and strategies, including:
 - A description of the design criteria of the final landuse and landform;
 - indicators to guide the return of the land back to agricultural production;
 - expected timeline for the rehabilitation program;
 - monitoring and mitigation measures to be adopted for rehabilitation remedial actions; and
 - a commitment to burying cables and pipes to a depth >500mm on any land with a cropping history or land with a capability for cropping to allow greater opportunity for agricultural activities to continue above the cables. This is especially relevant for the cables/pipes which will be left in situ once restoration is complete.
- Specific Issues – Water should include:
 - A detailed description of the proposed management of watercourses on site, outlining if these watercourses are to be diverted or how they will be managed, with particular focus in relation to panels placed within the watercourses;
 - specific details outlining the estimated volume of water required for dust suppression and construction purposes and the source of this water.

(Water supply requires careful consideration in the early stages of the project in order to ensure the availability of supply. Similar projects have encountered delays as a result of difficulty in obtaining the required water supply.)

Yours sincerely

A handwritten signature in blue ink, appearing to read 'Mitchell Isaacs', with a stylized, cursive script.

Mitchell Isaacs

Director, Planning Policy & Assessment Advice

24 January 2017

DPI appreciates your help to improve our advice to you. Please complete this three minute survey about the advice we have provided to you, here:

<https://goo.gl/o8TXWz>



Diana Charteris
Senior Planning Officer
Resource Assessments & Planning Services
Department of Planning & Environment
GPO Box 39
SYDNEY NSW 2001

Diana.Charteris@planning.nsw.gov.au

Dear Diana

Beryl Solar Farm (SSD 8183)

I refer to your email dated 10 January 2017, inviting the Division of Resources & Energy (DRE) to provide comments on the Beryl Solar Farm Preliminary Environmental Assessment (PEA) for the Division's requirements for draft SEARs.

The Division notes that the project site for the Beryl Solar Farm contains a number of occurrences for gold and diamonds. Notably, drilling programs have tested the western margin of the proposal area (Figure 1) for gold and diamond deposits and the area generally remains prospective.

The Division has reviewed and assessed the Beryl Solar Farm draft SEARs and recommends the requirement for demonstrated, authentic consultation with mineral resource stakeholders including the Geological Survey of NSW, adjacent mineral title holders and quarry operators impacted by the Beryl Solar Farm proposal, be incorporated in the SEARs as outlined below.

The Environmental Assessment (EA) must consider the potential impact of the project, including associated ancillary infrastructure, on any mineral resources, as prescribed under the *Mining Act 1992* and construction materials, both within and adjacent to the project area.

The EA is to indicate, on a map or other visual means, the following:

- the extent of the Project area,
- the location of affected minerals titles (adjacent and adjoining),
- transmission and (project) related infrastructure,
- any transmission corridors, and
- any other relevant information.

The proponent must conduct an assessment as part of the EA, regarding the potential impacts of the project, including electricity transmission infrastructure, on any significant mineral resources, including:

- Any operating mines, extractive industries or known mineral or petroleum resources.
- Exploration activities in the vicinity of the proposed development.
- Access for future exploration in the area.

The proponent must liaise with the Division regarding the location of proposed electricity transmission infrastructure.

The EA should also provide evidence of any associated stakeholder consultation documents and, where required detail the ongoing engagement strategy in the form of management plans. Specifically, the EA should demonstrate:

- consultation with Boral Resources (Country) Pty Ltd regarding potential impacts on the continued operation and any potential future expansions of the quarry.
note: this should include evidence of notification of the project provided to Boral Resources (Country) Pty Ltd as set out in the requirements above.
- Consideration of the provisions of the *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2010* for compatibility with existing extractive operations.

The Division's database indicates that the contact details for the Beryl Quarry are:

Beryl Quarry
Boral Resources (Country) Pty Limited
PO Box 2185
ORANGE NSW 2800

- Consultation with current titleholders to determine their level of interest. A record of consultation is required in the EA. This should include a letter of notification of the proposal to the title holder or their agent including a map indicating the location of the solar farm proposal area (including electricity transmission infrastructure) in relation to the exploration title boundaries, and a letter of response from the title holder or their nominee to the proponent.
note: this should include evidence of notification of the project provided to titleholders as set out in the requirements above.

The Department's database indicates that the contact details for both EL8160 and EL8405 are:

Bowdens Silver Pty Limited (subsidiary of Silver Mines Limited)
C/- Enrizen Enable Pty Ltd
Level 11
52 Phillip Street
SYDNEY NSW 2000

For current titles the proponent should refer to:

<http://www.resourcesandenergy.nsw.gov.au/landholders-and-community/common-ground>

Should you have any enquires regarding this matter please contact Steve Cozens, Senior Project Officer, Royalty & Advisory Services on 9842 8573.

Yours sincerely



Zane West
Manager Royalties & Advisory Services

Beryl Solar Farm Proposal

The map displays the proposed solar farm area outlined in orange. Key features include:

- EL8160 BOWDENS SILVER PTY LIMITED**: Mineral title area.
- EL8405 SILVER MINES LIMITED**: Mineral title area.
- Beryl Deep Lead**: Located near the top left corner.
- Louisa Deep Lead**: Located near the bottom right corner.
- BERYL QUARRY**: Circled in green on the left side.
- Metallic Mineral Occurrences**: Indicated by yellow dots.
- Metallic & Industrial Mineral drillholes**: Indicated by green triangles.

Legend

- Beryl Solar Farm Proposal (Orange outline)
- Current Mineral Titles (Brown shaded area)
- Beryl Quarry location (Green circle)
- Electricity Transmission Line (Blue line)
- Cadastre (Thin grey lines)
- Metallic Mineral Occurrences (Yellow dot)
- Metallic & Industrial Mineral drillholes (Green triangle)

Date Saved: 20/01/2017 11:08:27 AM

Scale: 0 to 2 kms

Compass Rose: N, S, E, W

Disclaimer:

The information contained in this publication is based on knowledge and understanding at time of writing (**January 2017**). However, because of advances in knowledge, users are reminded of the need to ensure that information upon which they rely is up to date. No warranty about the accuracy, currency or completeness of any information contained in this document is inferred (including, without limitation, any information in the document provided by third parties). While all reasonable care has been taken in the compilation, to the extent permitted by law, NSW Department of Trade and Investment, Regional Infrastructure and Services and the State of New South Wales exclude all liability for the accuracy or completeness of the information, or for any injury, loss, or damage whatsoever (including without limitation liability for negligence and consequential losses) suffered by any person acting, or purporting to act, in reliance upon anything contained herein. Users should rely upon their own advice, skills, interpretation and experience in applying information contained in this publication. The product trade names in this publication are supplied on the understanding that no preference between equivalent products is intended and that the inclusion of a product name does not imply endorsement by the department over any equivalent product.

NSW GOVERNMENT

Department of Industry Resources & Energy

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Our reference: FIL13/4934 & SF17/1806; DOC16/11979-01
Contact: Sheridan Ledger 02 6332 7608

Mrs Diana Charteris
Senior Planning Officer
Resource Assessments
Department of Planning and Environment
PO Box 39
SYDNEY NSW 2001

23 January 2017

Dear Mrs Charteris,

Beryl Solar Farm (SSD 8183)
EPA Request - Secretary's Environmental Assessment Requirements

I refer to your email of 10 January 2017 requesting the Environment Protection Authority's (EPA) requirements for the preparation of an Environmental Impact Statement (EIS) for the proposed Beryl Solar Farm (the Proposal). The EPA understands that the application will be assessed by the Department of Planning and Environment (DPE) under Part 4 of the *Environmental Planning and Assessment Act 1979* as a State Significant Development.

The EPA has considered the details provided regarding the Proposal, including the Beryl Solar Farm Scoping Report, dated December 2016. The EPA notes that the Proposal will have a capacity of 95 MW from approximately 220 ha of photovoltaic modules.

The EPA would like to advise that Section 17 of Schedule 1 of the *Protection of the Environment Operations Act 1997* (the POEO Act) does not include electricity generation from solar. Therefore the Proposal will not require an environment protection licence (EPL) should it be approved by the Department of Planning & Environment (DPE).

In accordance with the provisions of the POEO Act Mid-Western Regional Council is the appropriate regulatory authority for this Proposal and as such, any future correspondence regarding it should be directed to Council.

Should you wish to discuss the matter further please contact Ms Sheridan Ledger from the Central West (Bathurst) Office of the EPA by telephoning (02) 6332 7608.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Darryl Clift'.

DARRYL CLIFT
Head Central West Unit
Environment Protection Authority

JR:CA:ENE100020

24 January 2017

NSW Department of Planning & Environment
GPO Box 39
SYDNEY NSW 2001

Attention: Diana Charteris

Dear Madam,

RE: BERYL SOLAR FARM

Thank you for providing Mid-Western Regional Council (Council) with the opportunity to review and provide input into the Secretary's Environmental Assessment Requirements (SEAR's) for the proposed Beryl Solar Farm (SSD 8183). Council has reviewed the requirements for SSD 8183 and requests the following issues be specifically addressed as part of the impact assessment:

Transport:

Council requests that details be provided on the proposed road upgrades that the applicant intends on undertaking. This will include intersection treatments, railway crossings, lane widths and surfacing details in accordance with the relevant AustRoads Guidelines. The proponent will need to address the impact on local roads during the construction and operational phases and shall include a Road Dilapidation Report and a complete audit of the road formation and/or pavement condition. Roads that are anticipated to be affected by the proposal are the Castlereagh Highway and Beryl Road.

Community Consultation:

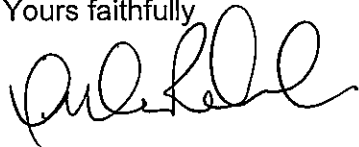
Council requests that the proponent conducts extensive consultation with the community and in particular, impacted/adjoining land owners. This will ensure the community has current and accurate information to provide feedback on the proposed project including visual, noise or social impacts.

Boundary Realignment

Council understands that the department would like to specifically discuss the proposed boundary adjustment. Lindsay Dunstan or Cameron Amos, from Council's Planning and Development team, can be contacted directly.

Should you have any further enquiries in relation to this matter, please contact Council on (02) 6378 2850.

Yours faithfully

A handwritten signature in black ink, appearing to read 'Julie Robertson', written in a cursive style.

**JULIE ROBERTSON
DIRECTOR DEVELOPMENT**

Our Ref: DOC17/25197-1
Your Ref: SSD 8183

Ms Diana Charteris
Senior Planning Officer
Resource Assessments
Department of Planning and Environment
Diana.Charteris@planning.nsw.gov.au

Dear Ms Charteris,

Beryl Solar Farm – SSD 8183

I refer to your email dated 10 January 2017 seeking input into the Department of Planning and Environment Secretary's Environmental Assessment Requirements (SEARs) for the preparation of an Environmental Impact Assessment (EIS) for the Beryl Solar Farm (SSD 8183).

OEH has considered your request and provides SEARs for the proposed development in **Attachments A, B and C** and guidance material in **Attachment D**.

OEH recommends the EIS needs to appropriately address the following:

1. Biodiversity and offsetting
2. Aboriginal cultural heritage
3. Historic heritage
4. Water and soils
5. Flooding

OEH notes that there are a number of Endangered Ecological Communities and threatened species potentially affected by the development, and that Aboriginal cultural heritage items may also be present. OEH recommends that the design of the Solar Farm avoids areas of native vegetation as much as possible. Where the project may impact on potential habitat areas of *Diuris tricolor*, targeted surveys should be undertaken during the months of September and October.

Please note that the NSW Biodiversity Offsets Policy for Major Projects <http://www.environment.nsw.gov.au/resources/biodiversity/140672biopolicy.pdf> is now being implemented. The policy provides a standard method for assessing impacts of major projects on biodiversity and determining offsetting arrangements.

The policy is underpinned by the Framework for Biodiversity Assessment (FBA) <http://www.environment.nsw.gov.au/resources/biodiversity/140675fba.pdf> which contains the assessment methodology that is adopted by the policy to quantify and describe the impact assessment requirements and offset guidance that applies to Major Projects. The FBA must be used by a proponent to assess all biodiversity values on the development site.

If you have any questions regarding this matter further please contact David Geering on 02 6883 5335 or email david.geering@environment.nsw.gov.au.

Yours sincerely,

A handwritten signature in dark ink, appearing to be 'SC', with a long horizontal stroke extending to the right.

STEVEN COX
Senior Team Leader Planning
North West Region

Date: 19 January 2017

Contact officer: DAVID GEERING
6883 5335

Attachment A - Environmental Assessment Requirements

Attachment B – Species/Populations/Ecological Communities which Require Further Consideration

Attachment C - Critically Endangered Entities Specifically Excluded from Requiring Further Consideration

Attachment D - Guidance Material

Attachment A – Standard Environmental Assessment Requirements

Biodiversity
<ol style="list-style-type: none"> 1. Biodiversity impacts related to the proposed Beryl Solar Farm are to be assessed and documented in accordance with the Framework for Biodiversity Assessment, unless otherwise agreed by OEH, by a person accredited in accordance with s142B(1)(c) of the <i>Threatened Species Conservation Act 1995</i>. 2. Impacts on the species and ecological communities listed in Attachment B will require further consideration and provision of the information specified in s9.2 of the Framework for Biodiversity Assessment.
Aboriginal Cultural Heritage
<ol style="list-style-type: none"> 3. The EIS must identify and describe the Aboriginal cultural heritage values that exist across the whole area that will be affected by the development and document these in the EIS. This may include the need for surface survey and test excavation. The identification of cultural heritage values should be guided by the <i>Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW</i> (DECCW, 2011) and consultation with OEH regional officers.
<ol style="list-style-type: none"> 4. Where Aboriginal cultural heritage values are identified, consultation with Aboriginal people must be undertaken and documented in accordance with the <i>Aboriginal cultural heritage consultation requirements for proponents 2010</i> (DECCW). The significance of cultural heritage values for Aboriginal people who have a cultural association with the land must be documented in the EIS.
<ol style="list-style-type: none"> 5. Impacts on Aboriginal cultural heritage values are to be assessed and documented in the EIS. The EIS must demonstrate attempts to avoid impact upon cultural heritage values and identify any conservation outcomes. Where impacts are unavoidable, the EIS must outline measures proposed to mitigate impacts. Any objects recorded as part of the assessment must be documented and notified to OEH.
Historic Heritage
<ol style="list-style-type: none"> 6. The EIS must provide a heritage assessment including but not limited to an assessment of impacts to <i>State and local heritage</i> including conservation areas, natural heritage areas, places of Aboriginal heritage value, buildings, works, relics, gardens, landscapes, views, trees should be assessed. Where impacts to State or locally significant heritage items are identified, the assessment shall: <ol style="list-style-type: none"> a. outline the proposed mitigation and management measures (including measures to avoid significant impacts and an evaluation of the effectiveness of the mitigation measures) generally consistent with the NSW Heritage Manual (1996), b. be undertaken by a suitably qualified heritage consultant(s) (note: where archaeological excavations are proposed the relevant consultant must meet the NSW Heritage Council's Excavation Director criteria), c. include a statement of heritage impact for all heritage items (including significance assessment), d. consider impacts including, but not limited to, vibration, demolition, archaeological disturbance, altered historical arrangements and access, landscape and vistas, and architectural noise treatment (as relevant), and e. where potential archaeological impacts have been identified develop an appropriate archaeological assessment methodology, including research design, to guide physical archaeological test excavations (terrestrial and maritime as relevant) and include the results of these test excavations.
Water and Soils
<ol style="list-style-type: none"> 7. The EIS must map the following features relevant to water and soils including: <ol style="list-style-type: none"> a. Acid sulfate soils (Class 1, 2, 3 or 4 on the Acid Sulfate Soil Planning Map). b. Rivers, streams, wetlands, estuaries (as described in Appendix 2 of the Framework for Biodiversity Assessment). c. Groundwater. d. Groundwater dependent ecosystems. e. Proposed intake and discharge locations.

<p>8. The EIS must describe background conditions for any water resource likely to be affected by the development, including:</p> <ol style="list-style-type: none"> Existing surface and groundwater. Hydrology, including volume, frequency and quality of discharges at proposed intake and discharge locations. Water Quality Objectives (as endorsed by the NSW Government http://www.environment.nsw.gov.au/ieo/index.htm) including groundwater as appropriate that represent the community's uses and values for the receiving waters. Indicators and trigger values/criteria for the environmental values identified at (c) in accordance with the ANZECC (2000) Guidelines for Fresh and Marine Water Quality and/or local objectives, criteria or targets endorsed by the NSW Government.
<p>9. The EIS must assess the impacts of the development on water quality, including:</p> <ol style="list-style-type: none"> The nature and degree of impact on receiving waters for both surface and groundwater, demonstrating how the development protects the Water Quality Objectives where they are currently being achieved, and contributes towards achievement of the Water Quality Objectives over time where they are currently not being achieved. This should include an assessment of the mitigating effects of proposed stormwater and wastewater management during and after construction. Identification of proposed monitoring of water quality.
<p>10. The EIS must assess the impact of the development on hydrology, including:</p> <ol style="list-style-type: none"> Water balance including quantity, quality and source. Effects to downstream rivers, wetlands, estuaries, marine waters and floodplain areas. Effects to downstream water-dependent fauna and flora including groundwater dependent ecosystems. Impacts to natural processes and functions within rivers, wetlands, estuaries and floodplains that affect river system and landscape health such as nutrient flow, aquatic connectivity and access to habitat for spawning and refuge (e.g. river benches). Changes to environmental water availability, both regulated/licensed and unregulated/rules-based sources of such water. Mitigating effects of proposed stormwater and wastewater management during and after construction on hydrological attributes such as volumes, flow rates, management methods and re-use options. Identification of proposed monitoring of hydrological attributes.
<p>Flooding</p>
<p>11. The EIS must map the following features relevant to flooding as described in the Floodplain Development Manual 2005 (NSW Government 2005) including:</p> <ol style="list-style-type: none"> Flood prone land. Flood planning area, the area below the flood planning level. Hydraulic categorisation (floodways and flood storage areas).
<p>12. The EIS must describe flood assessment and modelling undertaken in determining the design flood levels for events, including a minimum of the 1 in 10 year, 1 in 100 year flood levels and the probable maximum flood, or an equivalent extreme event.</p>
<p>13. The EIS must model the effect of the proposed development (including fill) on the flood behaviour under the following scenarios:</p> <ol style="list-style-type: none"> Current flood behaviour for a range of design events as identified in 11 above. This includes the 1 in 200 and 1 in 500 year flood events as proxies for assessing sensitivity to an increase in rainfall intensity of flood producing rainfall events due to climate change.
<p>14. Modelling in the EIS must consider and document:</p> <ol style="list-style-type: none"> The impact on existing flood behaviour for a full range of flood events including up to the probable maximum flood. Impacts of the development on flood behaviour resulting in detrimental changes in potential flood affection of other developments or land. This may include redirection of flow, flow velocities, flood levels, hazards and hydraulic categories. Relevant provisions of the NSW Floodplain Development Manual 2005.

15. The EIS must assess the impacts on the proposed development on flood behaviour, including:
 - a. Whether there will be detrimental increases in the potential flood affectation of other properties, assets and infrastructure.
 - b. Consistency with Council floodplain risk management plans.
 - c. Compatibility with the flood hazard of the land.
 - d. Compatibility with the hydraulic functions of flow conveyance in floodways and storage in flood storage areas of the land.
 - e. Whether there will be adverse effect to beneficial inundation of the floodplain environment, on, adjacent to or downstream of the site.
 - f. Whether there will be direct or indirect increase in erosion, siltation, destruction of riparian vegetation or a reduction in the stability of river banks or watercourses.
 - g. Any impacts the development may have upon existing community emergency management arrangements for flooding. These matters are to be discussed with the SES and Council.
 - h. Whether the proposal incorporates specific measures to manage risk to life from flood. These matters are to be discussed with the SES and Council.
 - i. Emergency management, evacuation and access, and contingency measures for the development considering the full range of flood risk (based upon the probable maximum flood or an equivalent extreme flood event). These matters are to be discussed with and have the support of Council and the SES.
 - j. Any impacts the development may have on the social and economic costs to the community as consequence of flooding.

Attachment B – Species/Populations/Ecological Communities which Require Further Consideration

Table 1

Class	Scientific Name	Common Name	NSW Status	Comm. Status
Aves	<i>Anthochaera phrygia</i>	Regent Honeyeater	Critically Endangered	Critically Endangered
Flora	<i>Dichanthium setosum</i>	Bluegrass	Vulnerable	Vulnerable
Flora	<i>Euphrasia arguta</i>		Critically Endangered	Critically Endangered

Attachment C – Critically Endangered Entities Specifically Excluded From Requiring Further Consideration*

Table 2

Class	Scientific Name	Common Name	NSW Status	Comm. Status
Aves	<i>Lathamus discolor</i>	Swift Parrot	Endangered	Critically Endangered
Flora	<i>Prasophyllum sp. Wybong</i>		Protected	Critically Endangered
Community	<i>White Box Yellow Box Blakely's Red Gum Woodland</i>	White Box Yellow Box Blakely's Red Gum Woodland	Endangered Ecological Community	Critically Endangered Ecological Community

* Further information, as detailed in section 9.2.5.2 of the FBA, is not required for the excluded entities in Table 2. However, assessment of impacts and offset requirements must still be included in the biodiversity assessment report for these entities in accordance with the FBA.

Attachment D – Guidance Material

Title	Web address
<u>Relevant Legislation</u>	
<i>Coastal Protection Act 1979</i>	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+13+1979+cd+0+N
<i>Commonwealth Environment Protection and Biodiversity Conservation Act 1999</i>	https://www.legislation.gov.au/Details/C2016C00777
<i>Environmental Planning and Assessment Act 1979</i>	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+203+1979+cd+0+N
<i>Fisheries Management Act 1994</i>	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+38+1994+cd+0+N
<i>Marine Parks Act 1997</i>	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+64+1997+cd+0+N
<i>National Parks and Wildlife Act 1974</i>	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+80+1974+cd+0+N
<i>Protection of the Environment Operations Act 1997</i>	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+156+1997+cd+0+N
<i>Threatened Species Conservation Act 1995</i>	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+101+1995+cd+0+N
<i>Water Management Act 2000</i>	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+92+2000+cd+0+N
<i>Wilderness Act 1987</i>	http://www.legislation.nsw.gov.au/viewtop/inforce/act+196+1987+FIRST+0+N
Biodiversity	
NSW Biodiversity Offsets Policy for Major Projects (OEH, 2013)	http://www.environment.nsw.gov.au/resources/biodiversity/140672biopolicy.pdf
Framework for Biodiversity Assessment (OEH, 2013)	http://www.environment.nsw.gov.au/resources/biodiversity/140675fba.pdf
Fisheries NSW policies and guidelines	http://www.dpi.nsw.gov.au/fisheries/habitat/publications/policies,-guidelines-and-manuals/fish-habitat-conservation
List of national parks	http://www.environment.nsw.gov.au/NationalParks/parksearchatoz.aspx
Revocation, recategorisation and road adjustment policy (OEH, 2012)	http://www.environment.nsw.gov.au/policies/RevocationOfLandPolicy.htm
Guidelines for developments adjoining land and water managed by the Department of Environment, Climate Change and Water (DECCW, 2010)	http://www.environment.nsw.gov.au/resources/parks/policyRevocations.pdf
Heritage	
The Burra Charter (The Australia ICOMOS charter)	http://australia.icomos.org/wp-content/uploads/The-Burra-Charter-2013-Adopted-31.10.2013.pdf

Title	Web address
for places of cultural significance)	
Statements of Heritage Impact 2002 (HO & DUAP)	http://www.environment.nsw.gov.au/resources/heritagebranch/heritage/hmstatementsofhi.pdf
NSW Heritage Manual (DUAP) (scroll through alphabetical list to 'N')	http://www.environment.nsw.gov.au/Heritage/publications/index.htm#M-O
Aboriginal Cultural Heritage	
Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW, 2010)	http://www.environment.nsw.gov.au/resources/cultureheritage/commconsultation/09781ACHconsultreq.pdf
Code of Practice for the Archaeological Investigation of Aboriginal Objects in New South Wales (DECCW, 2010)	http://www.environment.nsw.gov.au/resources/cultureheritage/10783FinalArchCoP.pdf
Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW (OEH 2011)	http://www.environment.nsw.gov.au/resources/cultureheritage/20110263ACHguide.pdf
Aboriginal Site Recording Form	http://www.environment.nsw.gov.au/resources/parks/SiteCardMainV1_1.pdf
Aboriginal Site Impact Recording Form	http://www.environment.nsw.gov.au/resources/cultureheritage/120558asirf.pdf
Aboriginal Heritage Information Management System (AHIMS) Registrar	http://www.environment.nsw.gov.au/contact/AHIMSRegistrar.htm
Care Agreement Application form	http://www.environment.nsw.gov.au/resources/cultureheritage/20110914TransferObject.pdf
Water and Soils	
Acid Sulphate Soils	
Acid Sulfate Soils Planning Maps via 'The NSW Natural Resource Atlas'	www.nratlas.nsw.gov.au/
Acid Sulfate Soils Manual (Stone et al. 1998)	Manual available for purchase from: http://www.landcom.com.au/whats-new/the-blue-book.aspx DPI's Guidelines Register: Chapter 1 Acid Sulfate Soils Planning Guidelines: http://www.planning.nsw.gov.au/rdaguidelines/documents/NSW%20Acid%20Sulfate%20Soils%20Planning%20Guidelines.pdf Chapter 2 Acid Sulfate Soils Assessment Guidelines: http://www.planning.nsw.gov.au/rdaguidelines/documents/NSW%20Acid%20Sulfate%20Soils%20Assessment%20Guidelines.pdf
Acid Sulfate Soils Laboratory Methods Guidelines (Ahern et al. 2004)	http://www.advancedenvironmentalmanagement.com/Reports/Savannah/Appendix%2015.pdf <i>This replaces Chapter 4 of the Acid Sulfate Soils Manual above.</i>

Title	Web address
Flooding	
Reforms to coastal erosion management	http://www.environment.nsw.gov.au/coasts/coastalerosionmgmt.htm
Floodplain development manual	http://www.environment.nsw.gov.au/floodplains/manual.htm
Guidelines for Preparing Coastal Zone Management Plans	Guidelines for Preparing Coastal Zone Management Plans http://www.environment.nsw.gov.au/resources/coasts/130224CZMPGuide.pdf
NSW Climate Impact Profile	NSW Climate Impact Profile
Climate Change Impacts and Risk Management	Climate Change Impacts and Risk Management: A Guide for Business and Government, AGIC Guidelines for Climate Change Adaptation
Water	
Water Quality Objectives	http://www.environment.nsw.gov.au/ieo/index.htm
ANZECC (2000) Guidelines for Fresh and Marine Water Quality	www.environment.gov.au/water/publications/quality/australian-and-new-zealand-guidelines-fresh-marine-water-quality-volume-1
Applying Goals for Ambient Water Quality Guidance for Operations Officers – Mixing Zones	http://deccnet/water/resources/AWQGuidance7.pdf
Approved Methods for the Sampling and Analysis of Water Pollutant in NSW (2004)	http://www.environment.nsw.gov.au/resources/legislation/approvedmethods-water.pdf

18 January 2017

SF2017/006730; WST17/00005

Manager
Resource Assessments
Department of Planning & Environment
GPO Box 39
SYDNEY NSW 2001

Attention: Ms Diana Charteris

Dear Ms Charteris

**SSD 8183: Lot 20 DP 1173059 and Lot 1 DP 1012926; Perseverance Lane, Beryl;
Request for Secretary's Environmental Assessment Requirements (SEARs); Beryl Solar Farm**

Thank you for your email on 10 January 2017 referring the *Scoping Report* for the proposed Beryl Solar Farm Project and seeking SEARs from Roads and Maritime Services.

The *Scoping Report* has been reviewed. Roads and Maritime notes the proposal is for construction and operation of a 95 megawatt solar farm on land near Beryl west of Gulgong. Roads and Maritime has identified and recommends that the following issues be addressed in the Environmental Assessment:

- A traffic impact study prepared in accordance with the methodology set out in Section 2 of the RTA's *Guide to Traffic Generating Developments 2002* and including:
 - Hours and days of construction.
 - Schedule for phasing/staging of the project.
 - Traffic volumes:
 - Existing background traffic.
 - Project-related for each stage of the project including construction, operation and decommissioning.
 - Projected cumulative traffic volumes.
 - Traffic volumes are to also include a description of:
 - Ratio of light vehicles to heavy vehicles.
 - Peak times for existing traffic.

Roads and Maritime Services

- Peak times for project-related traffic.
- Transportation hours.
- Project related traffic interaction with existing background traffic.
- The origin, destination and routes for:
 - Employee and contractor light traffic.
 - Heavy traffic.
 - Oversize and over mass traffic.
- A description of all oversize and over mass vehicles and the materials to be transported.
- Details of access requirements to the Castlereagh Highway and an analysis of affected intersections with the Castlereagh Highway (Perseverance Lane and Beryl Road) for such access to determine suitability.
- The impact of generated traffic and measures employed to ensure efficiency and safety on the public road network during construction, operation and decommissioning of the project.
- The need for improvements to the road network, and the improvements proposed such as road widening and intersection treatments, to cater for and to mitigate the impact of project-related traffic.
- Local climate conditions that may affect road safety for vehicles used during construction, operation and decommissioning of the project (eg fog, wet and dry weather, etc)
- Proposed road facilities, access and intersection treatments are to be identified and be in accordance with *Austroads Guide to Road Design* and, on classified roads, Roads and Maritime supplements, including safe intersection sight distance.
- The layout of the internal road network, parking facilities and infrastructure within the project boundary.
- A Traffic Management Plan (TMP) is to be developed in consultation with the Mid Western Regional Council and Roads and Maritime prior to the commencement of haulage and/or construction operations. The TMP is to identify and provide management strategies to manage the impacts of projected related traffic including:
 - Haulage of materials to site.
 - Transportation of construction workers from accommodation facilities to site and return.

Roads and Maritime appreciates the opportunity to contribute to the SEARs and requests that a copy of the SEARs be forwarded to Roads and Maritime at the same time they are sent to the applicant.

Should you require further information please contact Andrew McIntyre, Manager Land Use Assessment, on 02 6861 1453.

Yours faithfully



Susie Mackay
Network & Safety Manager
Western